Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)
Approved for use through xx/xx/200x. OMB 0651-00xx
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): AUS9-2000-0483-US1

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on 08/15/2005

Signature: /Joseph R. Burwell/

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Application Number	Filed
09/714,724	11/16/2000

First Named Inventor: Barilloud

Art Unit	Examiner
2145	Kianersi, M.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 44,468
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

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NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: **Barillaud et al.**	§	Group Art Unit: **2145**
	§	
Serial No.: **09/714,724**	§	Examiner: **Kianersi, M.**
	§	
Filing Date: **11/16/2000**	§	Atty Docket #: **AUS9-2000-0483-US1**
	§	
For: **Method and system for automatic load balancing of advertised services by service information propagation based on user on-demand requests**	§	

SUPPORTING ARGUMENTS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

The following remarks are offered in response to the Office Action mailed 02/18/2005. Reconsideration of the claims is respectfully requested.

With respect to the third element of claim 1, the rejection states that Gehr et al. discloses the claimed feature at column 4, lines 22-25, which reads: "This routing information functions to load balance on a per client basis since each client has its own routing list." The operations that are performed at a client are more apparent when one refers to a larger portion of Gehr et al. at column 4, line 1, to column 5, line 4 (emphasis added):

> The overall dynamic server switching system comprises a client communication interface Ci associated with each client process as well as optional centralized server switching process SSP, as is described in additional detail below. The dynamic server switching system functions to direct requests from clients C1-C11 to designated servers S1-S4 for execution of the requests. The data generated as a result of the server actions are then returned to the requesting client. It should be noted that a server S1-S4 can be self serving, in that it can also function as a client for some service requests.
>
> The initial routing of each request from a client is defined by a client communication interface Ci1-Ci11 which is part of or associated with each client process C1-C11.

The client communication interface Ci includes request routing data which designates the primary server for this client process as well as alternate servers for use when the primary server is unavailable. Corresponding entries are included in this data which designate preferred communication methods between client-server pairs. Thus, the list entries uniquely define both a destination and a method of communicating with the selected destination. **This routing information functions to load balance on a per client basis since each client has its own routing list.** A server switching process SSP is shown as residing on processor P1. **The server switching process SSP functions to populate the client communication interfaces Ci1-Ci11 with data, update this data** and optionally provide a system operator with access to this data via terminal T. In this regard, the server switching process SSP can be a neuromorphic element which monitors interprocess communication activity in the data processing complex and revises the list entries in the client communication interface elements Ci as a function of the present state of the data processing complex. The selection of a neuromorphic processor, such as a neural network, provides the ability to learn the characteristics which are unique to the data processing system complex. In this manner, the server switching process SSP then function as the human system administrator would in managing the system maintenance.

Client-Server System Philosophy

In client-server system operations, multiple servers are provided to perform a particular function for the overall system, such as access to data stored in an automated cartridge library system, to ensure both that the plurality of clients receive an adequate level of service and a high level of server availability is maintained. Each client directs requests to a designated primary server and multiple clients typically access each server. **The fault tolerance aspect of the system architecture of the dynamic server switching system makes use of a client communication interface based control which enables a client to simply redirect requests from an unresponsive server to a predetermined alternate server without the overhead of prior art systems. This is accomplished by maintaining data in the client communication interface Ci located in each client, which data identifies the primary server for that client and the preferred communication method as well as a hierarchy of successive alternate servers and communication method pairs.** In the event that the client does not have requests served by the designated primary server or the

> designated communication method, **the client communication interface traverses the list to ascertain the identity of the first available alternative server-communication method pair.** The client then uses this retrieved data to initiate future requests. When an alternate server is being used, the client periodically tests the primary server-communication method pair to determine whether the fault has been cleared. If so, the client reestablishes the originally selected primary server-communication method pair as the request route, while wrapping up the existing communications with the alternate server-communication method pair.

Although the rejection specifically states that "the system traverses the list ...", the action is clearly performed at the client. Applicant asserts that Gehr et al. does not disclose the third element of claim 1, notwithstanding the argument in the rejection that discusses the actions at the client.

Applicant further asserts that the rejection fails to further distinguish client-server interactions in the present invention from the system that is disclosed in Gehr et al.. Gehr et al. discloses a system in which a client performs the initial routing of a request from the client to a server based on its own routing list that is stored at the client. A special server process updates the client's list when necessary.

In contrast, the present invention discloses a system in which a client originates a request to a first service manager for information about a service, as recited in the first element of claim 1. The second element of claim 1 recites that the first service manager determines if it has the necessary information, and the third element of claim 1 recites that the first service manager retrieves the information if it does not have it. If the first service manager does not have the necessary information about the service, then the first service manager retrieves the information from a second service manager and caches it, as recited by the fourth element of claim 1. The retrieved information is then sent to the client, as recited by the fifth element of claim 1. Not only does Gehr et al. not disclose any

features that are similar or analogous to the fourth element of claim 1, but Gehr et al. also does not disclose a series of steps that are similar or analogous to those performed at a distributed service manager or at some entity distinct from a client.

Moreover, Applicant asserts that the steps that are recited in claim 1 are not performed at a client, but the rejection of claim 1 improperly interprets the elements of claim 1 by referring to certain steps in Gehr et al. that are performed by the client. Although it is not explicitly stated with respect to claim 1, the argument in the rejection of claim 1 seems to be based on a supposed equivalency between a client and a server; for example, claim 4 explicitly states that Gehr et al. discloses "that a server S1-S4 can be self-serving in that it can also function as a client for some service requests". Assuming *arguendo* that a server performs steps that are similar to the second element and third element of claim 1, this is irrelevant with respect to the claim as a whole; the claim specifically recites that the request originates at a client and that the information is returned to the requesting client. Thus, even if a self-serving server were to perform something similar to two of the claimed steps, there would be no need for the server to perform the other forwarding and sending steps as recited in claim 1 because the server is supposedly identical to the client, and there would be no need for the server to forward or send information to itself. Even though one must examine each element of a claim, one must also examine the claim as a whole, and the manner in which the rejection interprets claim 1 completely fails when all of the claim elements are considered together.

Independent claim 3 differs from claim 1 in a couple of respects. Most importantly, claim 3 recites more detail about the organization of entities within the data processing system. For example, the first and second elements of claim 3 recite:

> initializing one or more local service managers within the distributed data processing system, wherein each local

service manager provides access to networked services for clients within the distributed data processing system, and wherein each client is uniquely associated with a local service manager;

initializing one or more distributed service managers within the distributed data processing system, wherein each distributed service manager provides access to networked services to local service managers within the distributed data processing system, and wherein each local service manager is uniquely associated with a distributed service manager;

The rejection of claim 3 complete ignores these claim elements and fails to address them. Moreover, claim 3 recites that a distributed service manager interacts with a local service manager to return information about a networked service to the local service manager. The distributed service manager and the local service manager are distinct from a client, which is recited within dependent claim 4 as a distinct entity. The rejection again recites the argument about the operations of a client with respect to claim 3 and with respect to claim 4, but the rejection fails to explain what entities in Gehr et al. fulfill the roles of the distributed service manager and the local service manager in the present invention. Applicant asserts that it is not possible to present a proper anticipation argument based on Gehr et al. because Gehr et al. does not have analogous or equivalent features to the present invention.